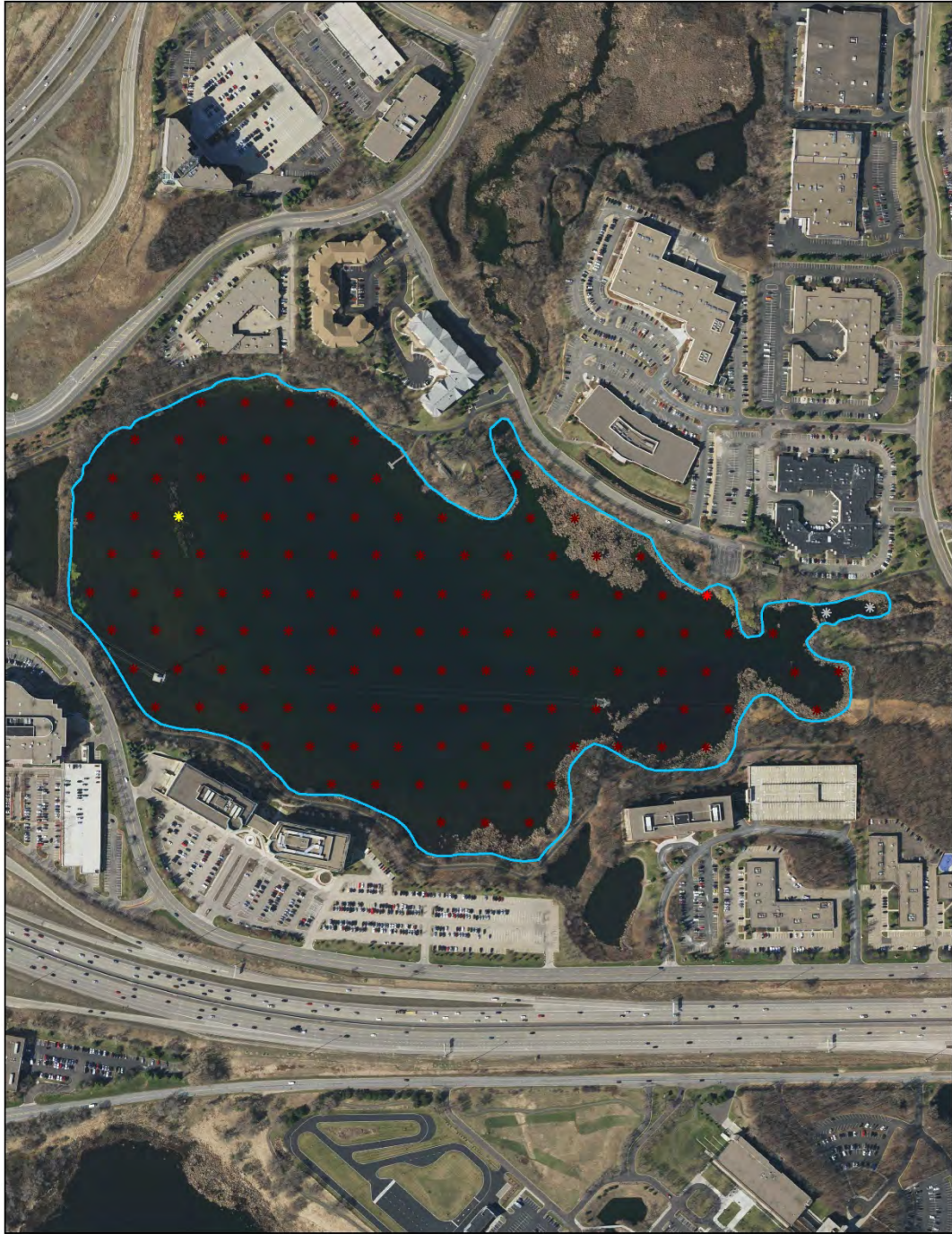


## Appendix F

### Aquatic Plant Survey Maps: Lake Smetana

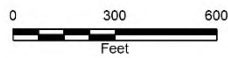
June 2019

Aquatic Plant Survey Maps: Lake Smetana



**Substrate Type**

- \* Muck
- \* Rock
- \* Sand
- \* No Access



**Bottom Substrate**

Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 June 25, 2019

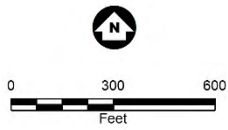
Aerial Imagery: 2010 MNGeoWMS





**Depth in ft.**

- \* No Access
- 0.5 - 2.0
- 2.1 - 5.0
- 5.1 - 8.0
- 8.1 - 11.0
- \* 11.1 - 13.0



**Lake Depth**

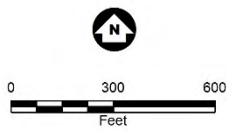
Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 June 25, 2019

Aerial Imagery: 2010 MNGeoWMS





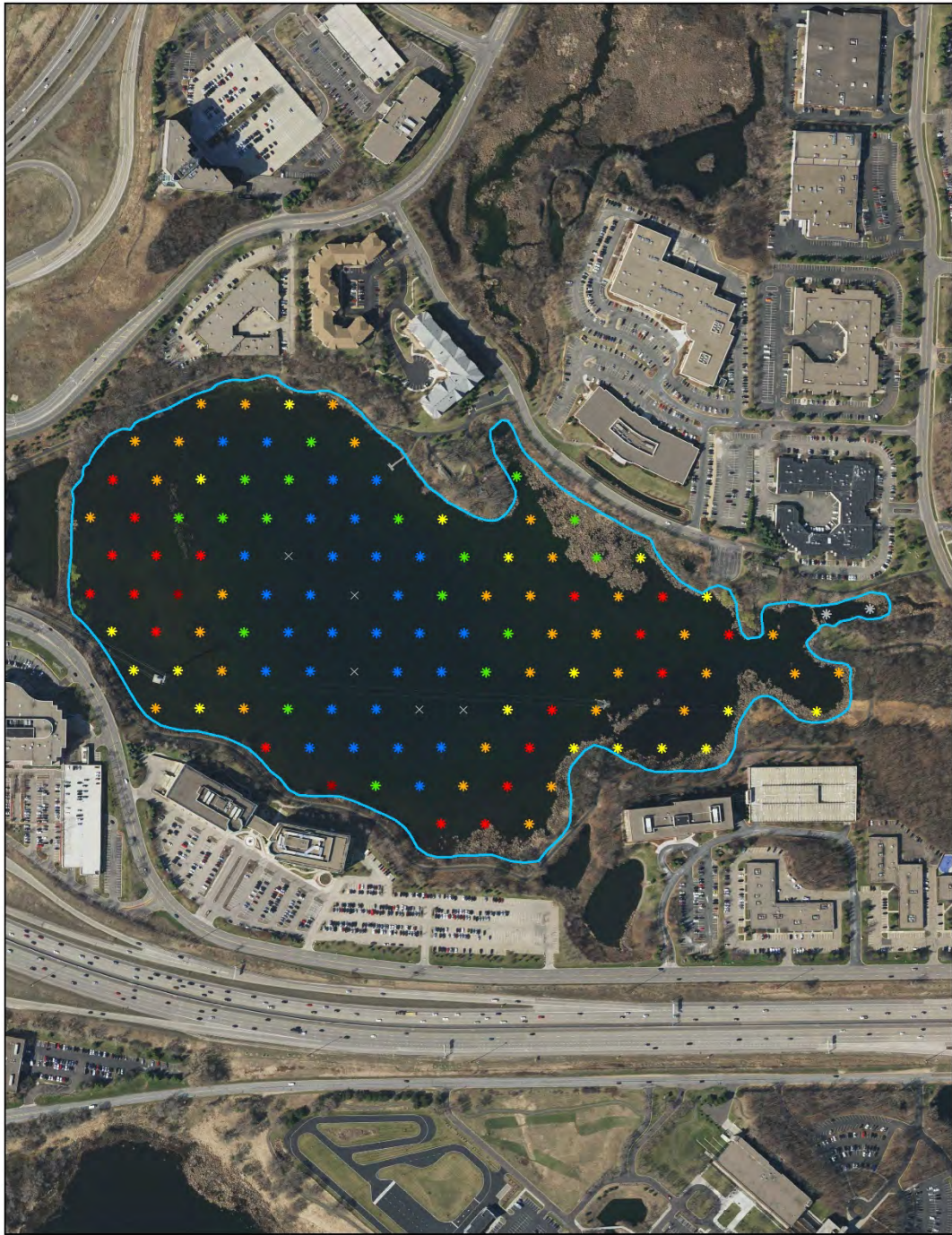
- Littoral Zone
- \* Littoral Zone with Plants
- \* >12.5 ft
- \* No Access



**Littoral Zone**  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 June 25, 2019

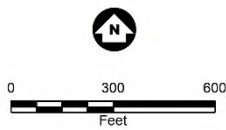
Aerial Imagery: 2010 MNGeoWMS





**# of Native Species**

- × None Found
- ★ 1 - 2
- ★ 3 - 4
- ★ 5 - 6
- ★ 7 - 8
- ★ 9 - 10
- ★ 11 - 12
- ★ No Access



**Native Species Richness**

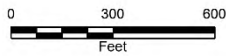
Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 June 25, 2019

Aerial Imagery: 2010 MNGeoWMS





\* Sample Point



### Survey Sample Points

Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 June 25, 2019

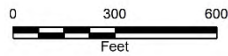
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ★ 1
- ★ 2
- ★ 3
- ★ No Access
- × None Found



**Total Rake Fullness**

Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 June 25, 2019

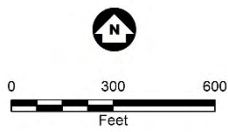
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ★ Visual
- ★ 1
- ★ 2
- ★ 3
- ★ No Access
- × None Found



**Coontail**  
*(Ceratophyllum demersum)*  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 June 25, 2019

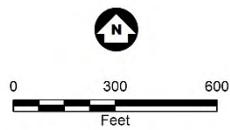
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✕ None Found

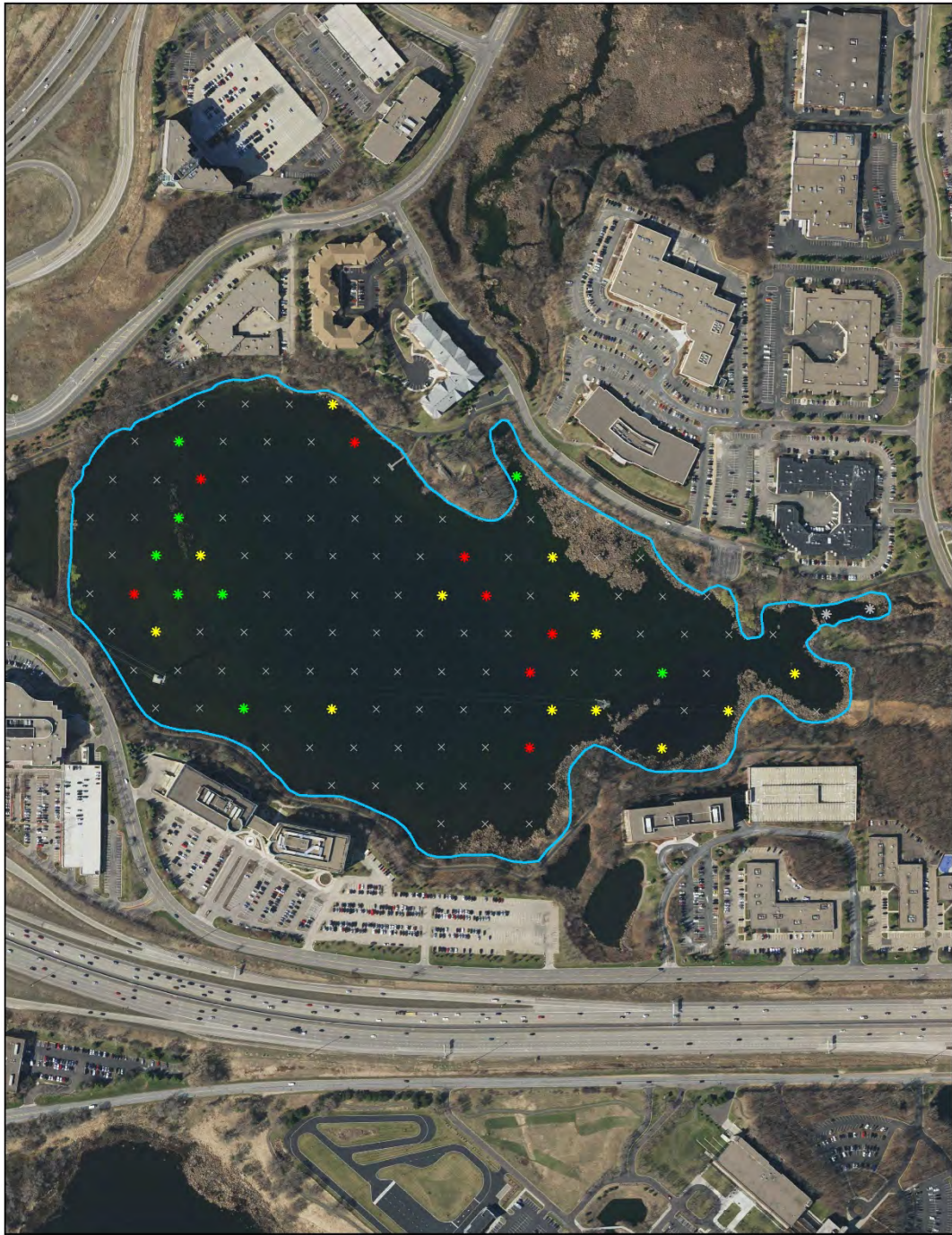


**Common waterweed**  
*(Elodea canadensis)*

Point Intercept Macrophyte Survey  
Smetana Lake  
Nine Mile Creek Watershed District  
Hennepin County, MN  
June 25, 2019

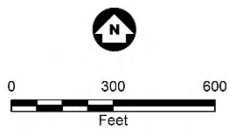
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Filamentous algae**

Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 June 25, 2019

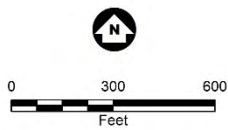
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Water star-grass**  
*(Heteranthera dubia)*  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 June 25, 2019

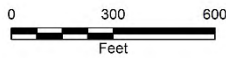
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Small duckweed  
(*Lemna minor*)**

Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 June 25, 2019

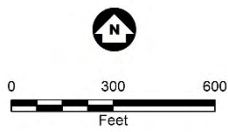
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Forked duckweed  
(*Lemna trisulca*)**

Point Intercept Macrophyte Survey  
Smetana Lake  
Nine Mile Creek Watershed District  
Hennepin County, MN  
June 25, 2019

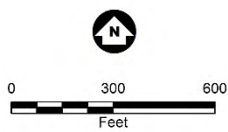
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- \* Visual
- \* 1
- \* 2
- \* 3
- \* No Access
- x None Found



**Bearded stonewort**  
*(Lychnothamnus barbatus)*

Point Intercept Macrophyte Survey  
Smetana Lake  
Nine Mile Creek Watershed District  
Hennepin County, MN  
June 25, 2019

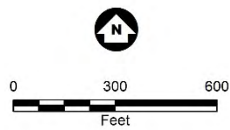
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Purple loosestrife**  
*(Lythrum salicaria)*  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 June 25, 2019

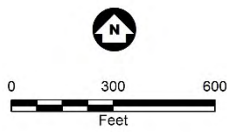
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Eurasian water-milfoil**  
*(Myriophyllum spicatum)*  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 June 25, 2019

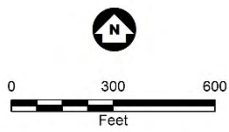
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



White water lily  
*(Nymphaea odorata)*  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 June 25, 2019

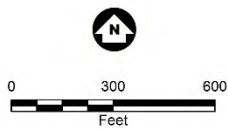
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



Curly-leaf pondweed  
*(Potamogeton crispus)*  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 June 25, 2019

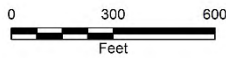
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Small pondweed**  
*(Potamogeton pusillus)*  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 June 25, 2019

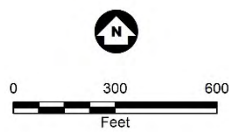
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Flat-stem pondweed  
(*Potamogeton zosteriformis*)**

Point Intercept Macrophyte Survey  
Smetana Lake  
Nine Mile Creek Watershed District  
Hennepin County, MN  
June 25, 2019

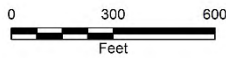
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

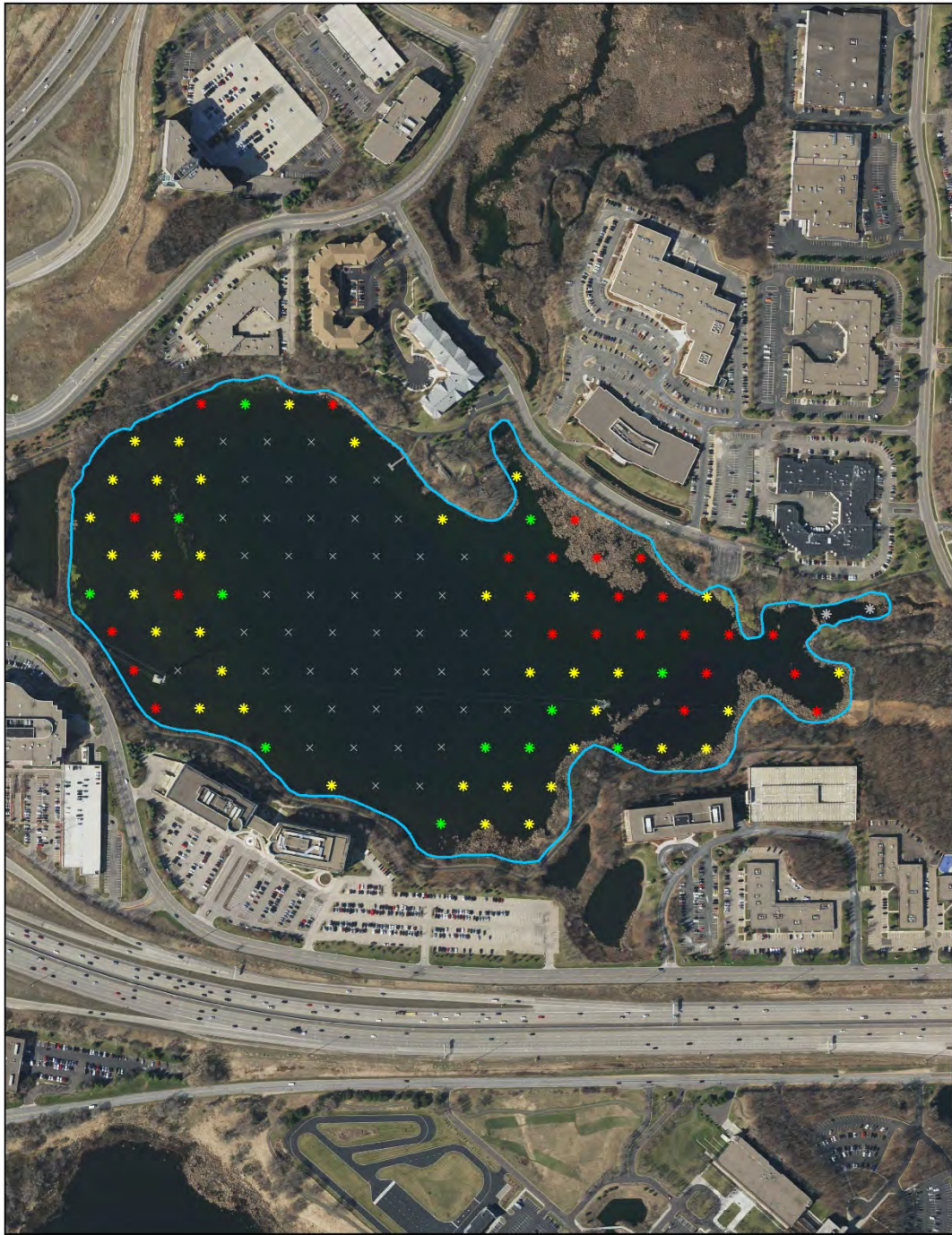
- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**White water crowfoot**  
*(Ranunculus aquatilis)*  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 June 25, 2019

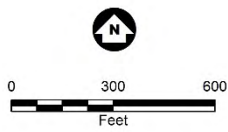
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



Large duckweed  
*(Spirodela polyrhiza)*  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 June 25, 2019

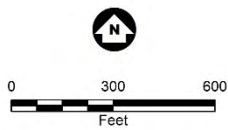
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Sago pondweed**  
*(Stuckenia pectinata)*  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 June 25, 2019

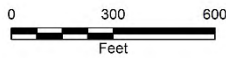
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Narrow-leaved cattail**  
*(Typha angustifolia)*

Point Intercept Macrophyte Survey  
Smetana Lake  
Nine Mile Creek Watershed District  
Hennepin County, MN  
June 25, 2019

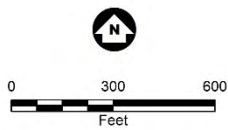
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Common bladderwort**  
*(Utricularia vulgaris)*  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 June 25, 2019

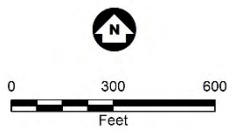
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Common watermeal**  
*(Wolffia columbiana)*

Point Intercept Macrophyte Survey  
Smetana Lake  
Nine Mile Creek Watershed District  
Hennepin County, MN  
June 25, 2019

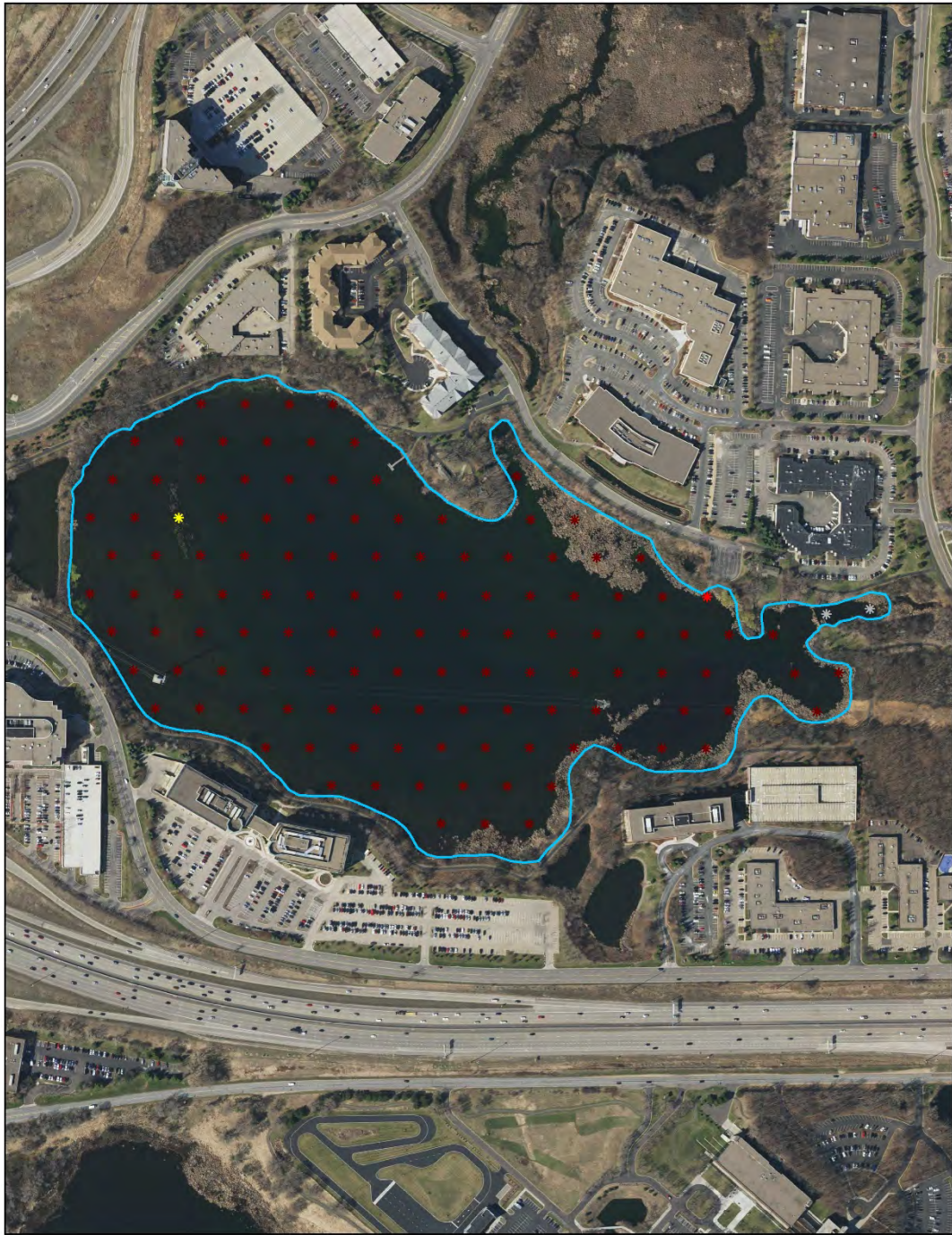
Aerial Imagery: 2010 MNGeoWMS



August 2019

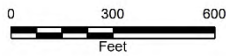
Aquatic Plant Survey Maps: Lake Smetana





**Substrate Type**

- \* Muck
- \* Rock
- \* Sand
- \* No Access



**Bottom Substrate**

Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 August 25, 2019

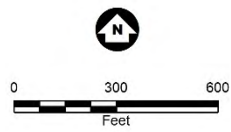
Aerial Imagery: 2010 MNGeoWMS





**Depth in ft.**

- \* No Access
- 0.5 - 2.0
- 2.1 - 5.0
- 5.1 - 8.0
- 8.1 - 11.0
- \* 11.1 - 13.0



**Lake Depth**

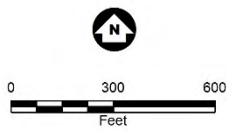
Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 August 25, 2019

Aerial Imagery: 2010 MNGeoWMS





- \* Littoral Zone
- \* Littoral Zone with Plants
- \* >12.5 ft
- \* No Access



**Littoral Zone**  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 August 25, 2019

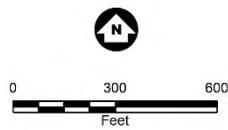
Aerial Imagery: 2010 MNGeoWMS





**# of Native Species**

- × None Found
- ★ 1 - 2
- ★ 3 - 4
- ★ 5 - 6
- ★ 7 - 8
- ★ 9 - 10
- ★ 11 - 12
- ★ No Access



**Native Species Richness**

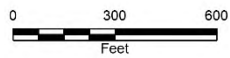
Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 August 25, 2019

Aerial Imagery: 2010 MNGeoWMS





\* Sample Point



### Survey Sample Points

Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 August 25, 2019

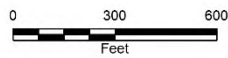
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ★ 1
- ★ 2
- ★ 3
- ✱ No Access
- ✕ None Found



**Total Rake Fullness**

Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 August 25, 2019

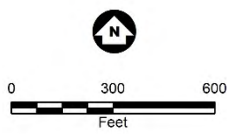
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ★ Visual
- ★ 1
- ★ 2
- ★ 3
- ✳ No Access
- ✕ None Found



**Coontail**  
*(Ceratophyllum demersum)*  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 August 25, 2019

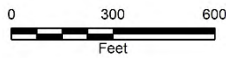
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Needle spikerush**  
*(Eleocharis acicularis)*  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 August 25, 2019

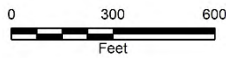
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Common waterweed  
(*Elodea canadensis*)**

Point Intercept Macrophyte Survey  
Smetana Lake  
Nine Mile Creek Watershed District  
Hennepin County, MN  
August 25, 2019

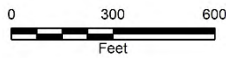
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Filamentous algae**

Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 August 25, 2019

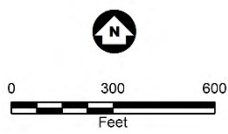
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Water star-grass**  
*(Heteranthera dubia)*  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 August 25, 2019

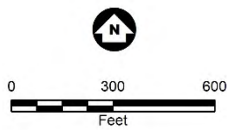
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Small duckweed  
(*Lemna minor*)**

Point Intercept Macrophyte Survey  
Smetana Lake  
Nine Mile Creek Watershed District  
Hennepin County, MN  
August 25, 2019

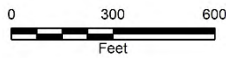
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Forked duckweed  
(*Lemna trisulca*)**

Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 August 25, 2019

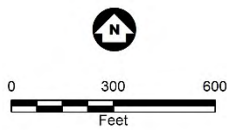
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Bearded stonewort**  
*(Lychnothamnus barbatus)*

Point Intercept Macrophyte Survey  
Smetana Lake  
Nine Mile Creek Watershed District  
Hennepin County, MN  
August 25, 2019

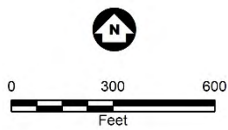
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Purple loosestrife**  
*(Lythrum salicaria)*  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 August 25, 2019

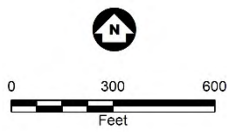
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Eurasian water-milfoil**  
*(Myriophyllum spicatum)*  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 August 25, 2019

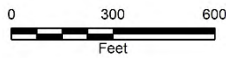
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

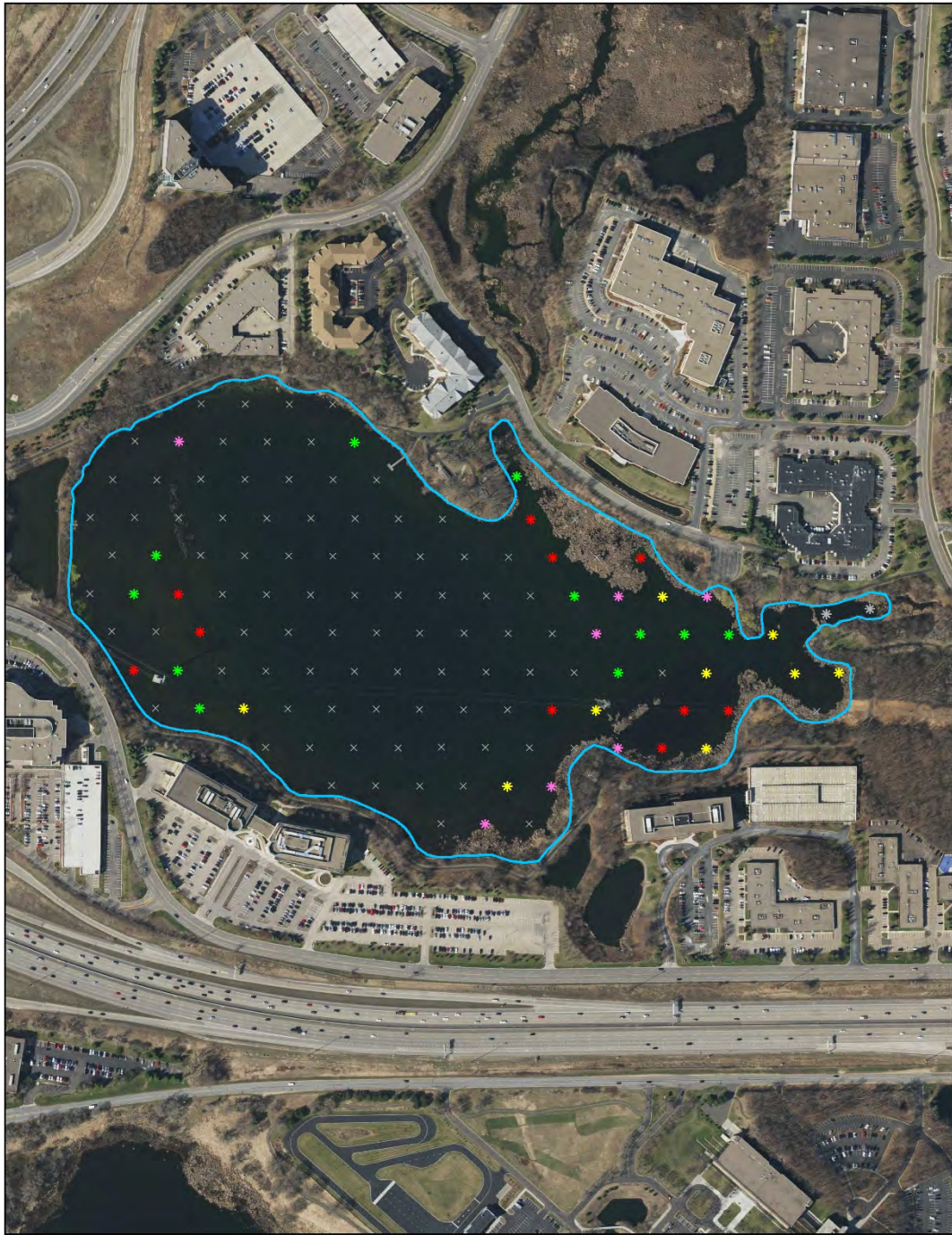
- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**American lotus**  
*(Nelumbo lutea)*  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 August 25, 2019

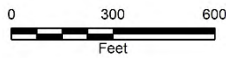
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



White water lily  
*(Nymphaea odorata)*  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 August 25, 2019

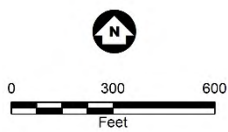
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



Curly-leaf pondweed  
*(Potamogeton crispus)*  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 August 25, 2019

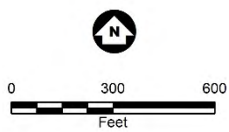
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found

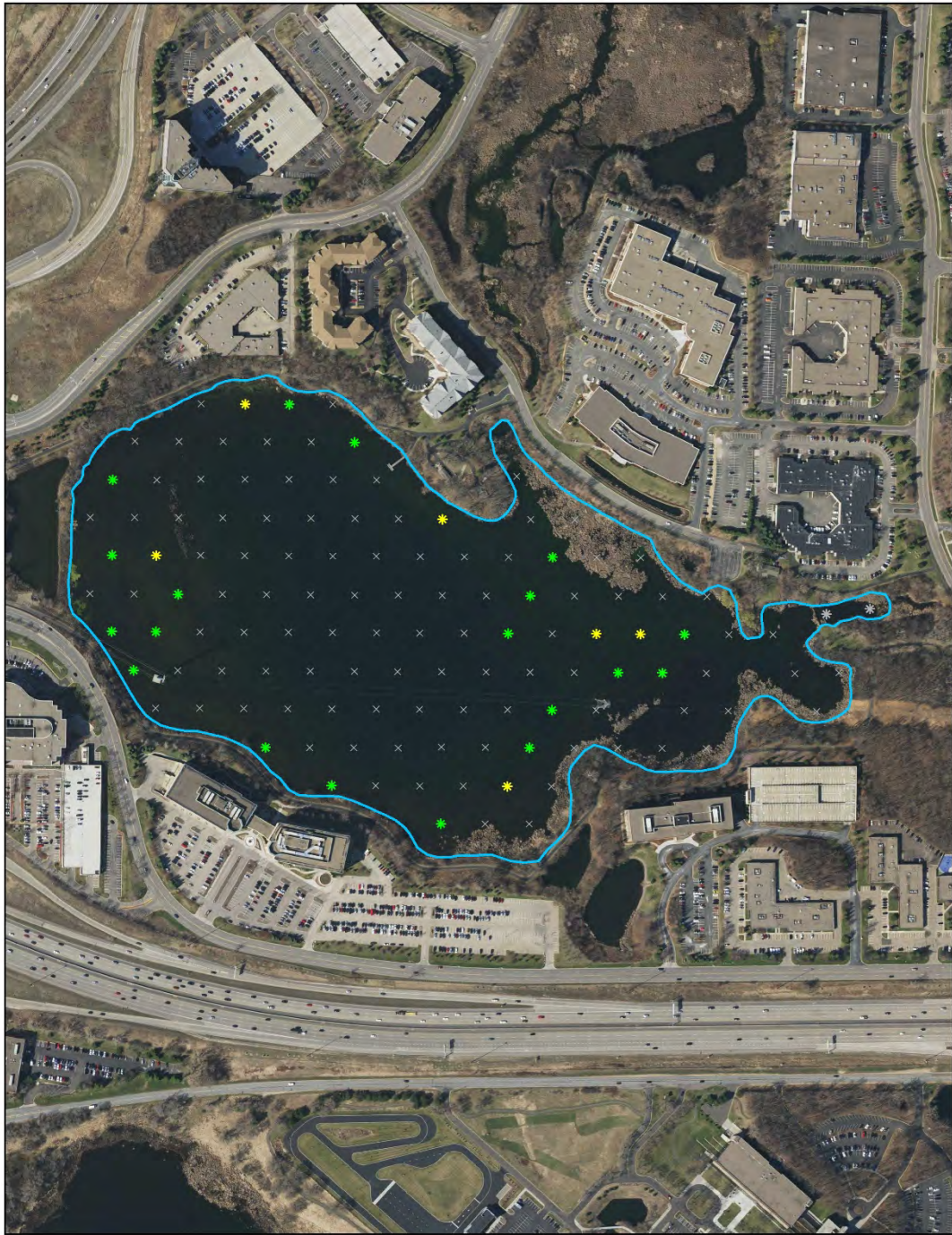


**Flat-stem pondweed**  
*(Potamogeton zosteriformis)*

Point Intercept Macrophyte Survey  
Smetana Lake  
Nine Mile Creek Watershed District  
Hennepin County, MN  
August 25, 2019

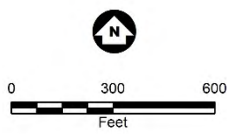
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**White water crowfoot**  
*(Ranunculus aquatilis)*  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 August 25, 2019

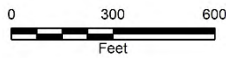
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



Large duckweed  
*(Spirodela polyrhiza)*  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 August 25, 2019

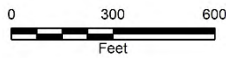
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Sago pondweed**  
*(Stuckenia pectinata)*  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 August 25, 2019

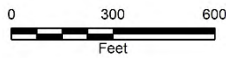
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Narrow-leaved cattail**  
*(Typha angustifolia)*

Point Intercept Macrophyte Survey  
Smetana Lake  
Nine Mile Creek Watershed District  
Hennepin County, MN  
August 25, 2019

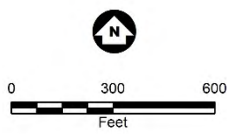
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Common bladderwort**  
*(Utricularia vulgaris)*  
 Point Intercept Macrophyte Survey  
 Smetana Lake  
 Nine Mile Creek Watershed District  
 Hennepin County, MN  
 August 25, 2019

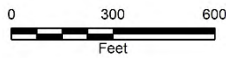
Aerial Imagery: 2010 MNGeoWMS





**Rake Fullness Rating**

- ✱ Visual
- ✱ 1
- ✱ 2
- ✱ 3
- ✱ No Access
- ✱ None Found



**Common watermeal  
(*Wolffia columbiana*)**

Point Intercept Macrophyte Survey  
Smetana Lake  
Nine Mile Creek Watershed District  
Hennepin County, MN  
August 25, 2019

Aerial Imagery: 2010 MNGeoWMS